Showcase of New ENERGY STAR Tools
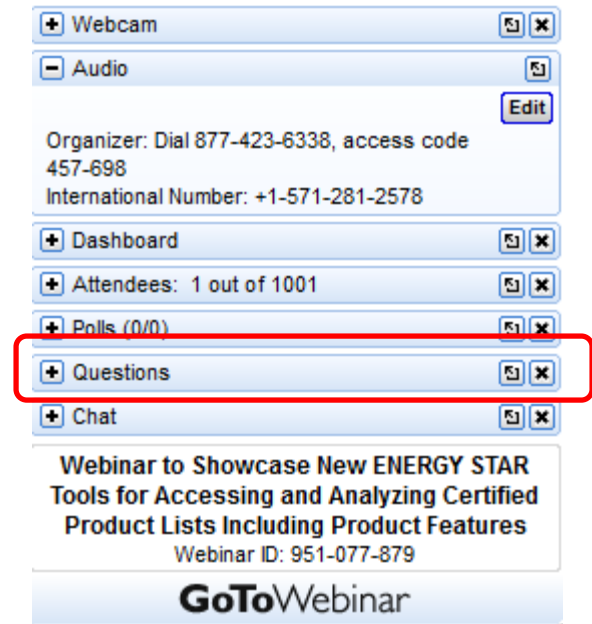
Accessing and Analyzing Certified Product Lists Including Product Features

June 18, 2014

Webinar Logistics

- All lines have been muted
- Questions or feedback:
  - Use question tab in webinar

  - Or email energystarproducts@energystar.gov
- Polling throughout webinar

Introductions

Kathleen Vokes

U.S. Environmental Protection Agency

Jon Luzader

SRA International

Michael Holzheimer

ICF International

John Line

SRA International

Webinar Objectives

- Introduce and promote suite of tools for accessing and analyzing ENERGY STAR Products information

- Promote new ENERGY STAR APIs

- Share strategy for updating APIs

- Seek feedback from stakeholders

Agenda

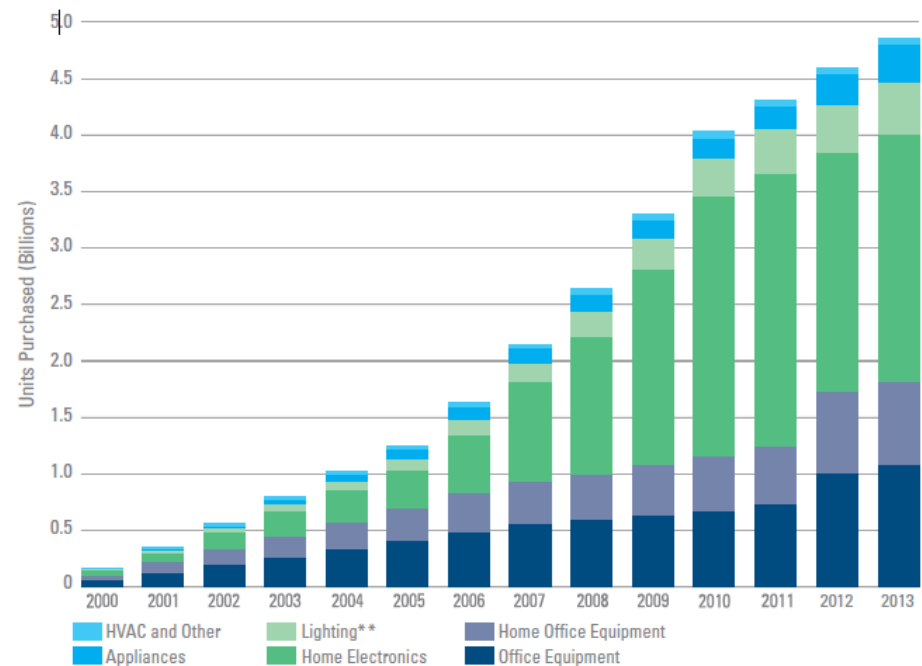|	
1	**ENERGY STAR Products Overview**
2	**Product Finder Overview**
3	**Product Finder Tools Features and Walk-through**
4	**Dataset Changes Process**
5	**Next Steps and Questions**

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ENERGY STAR Labeled Products Facts

- More than 45,000 product models carry the ENERGY STAR label

- More than 70 types of products carry the ENERGY STAR label

- ENERGY STAR has over 1,800 product brand owner partners

- ENERGY STAR has more than 2,600 retail partners

ENERGY STAR Products

- Americans purchased nearly 300 Million ENERGY STAR certified products in 2013 in over 70 categories

- Cumulative total of more than 4.8 billion products since 1992

- More than 85% of the American public recognizes the ENERGY STAR label

Fig. 2. More than 4.8 Billion ENERGY STAR Certified Products Purchased Since the Program Began*

Units Purchased (Billions)

Legend:
- HVAC and Other
- Appliances
- Lighting**
- Home Electronics
- Home Office Equipment
- Office Equipment

* Program began in 1992.
** Lighting category does not include purchases of light bulbs.

70+ Product Categories Are Covered by ENERGY STAR in the US

Lighting
Light Bulbs
Light Fixtures
Decorative Light Strings

Home Envelope
Roof products
Windows/Doors*

Other
Pool Pumps
Vending Machines

Heating & Cooling
Central AC*
Heat pumps
Boilers
Furnaces
Ceiling fans
Room AC
Ventilating fans
Water heaters

Office Equipment
Computers
Monitors
Printers
Copiers
Scanners
Fax machines
Multi-function devices
Servers
Storage
UPS

Commercial Food Service
Dishwashers
Refrigerators
Freezers
Ice machines
Fryers
Steamers
Hot cabinets
Griddles
Ovens

Appliances
Clothes dryers
Clothes washers
Dishwashers
Refrigerators
Dehumidifiers
Air cleaners
Water coolers

Home Electronics
Cordless phones
TVs
Set-top boxes
Home audio

* = not fully listed in EPA tools

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Partner to Product List Process
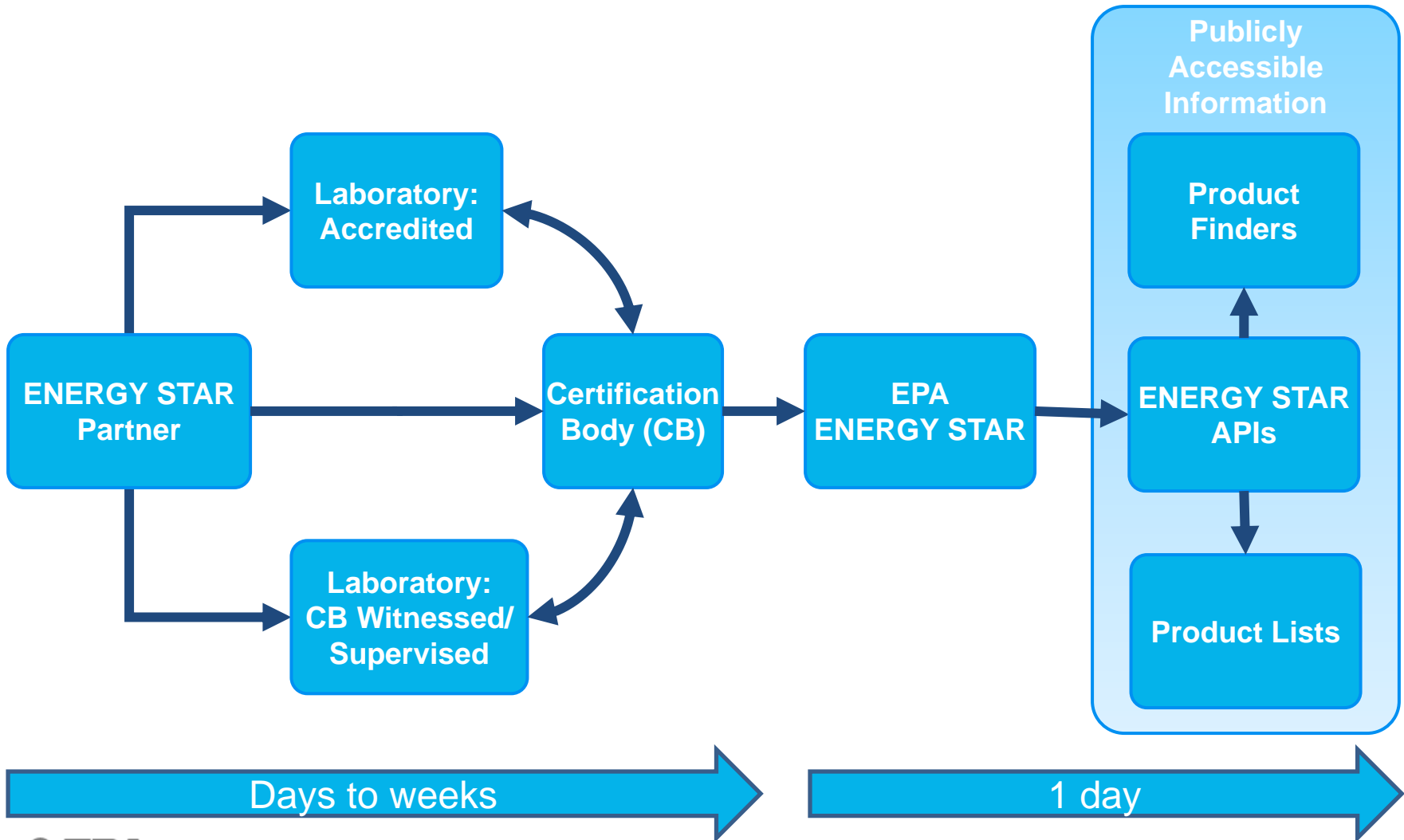
How Data is Clustered

Data targeting increasing

CB data sent to EPA

Product Lists (datasets, APIs)

Product Finder Tools

Product Finder Tool Overview

- Public-facing tool consumers, retailers, utilities and other stake-holders use to access product data
- www.energystar.gov/productfinder

Partner Benefits:

- Provide better access to EPA product data for all stakeholders
- Improve the ability to find product data
- Improve data quality
- Model data updated daily
- Models searchable by brand, model name, model number, additional information

Product Finder Search

- Additional models and information search
- Partial matches (fuzzy logic) searchable
- EPA encourages grouping of models

Product Lists Overview

- Updated daily
- Custom filters and embed options for retailers, partners, media
- Export options including Excel, .csv, APIs
- One portal where stakeholders access certified products*
  data.energystar.gov   *Excludes Windows, Non-AHRI CAC/ASHPs, and BCS

API Overview

- All product list fields available via APIs

- Intended users:
  - Energy efficiency program sponsors
  - Retailers
  - Third-party use for mash-ups of data

- "We eat our own dog food"
  - ENERGY STAR product finders use APIs

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Product Finder Links

- Product ID (PD_ID field) creates unique links for model + spec version:

  www.energystar.gov/productfinder/product/certified-light-bulbs/details/2209354

- Consumers can verify as ENERGY STAR

- Compare up to four models:

  …details/PD ID 1/PD ID 2/PD ID 3/PD ID 4

Product Finder Filters

- ## Sort and filter by key product attributes

Product Finder Details

- ## Compare key product attributes

ENERGY STAR Certified Residential Clothes Washers

Compare Products:

Want more information? Access the full product list in Excel , API, and other formats.
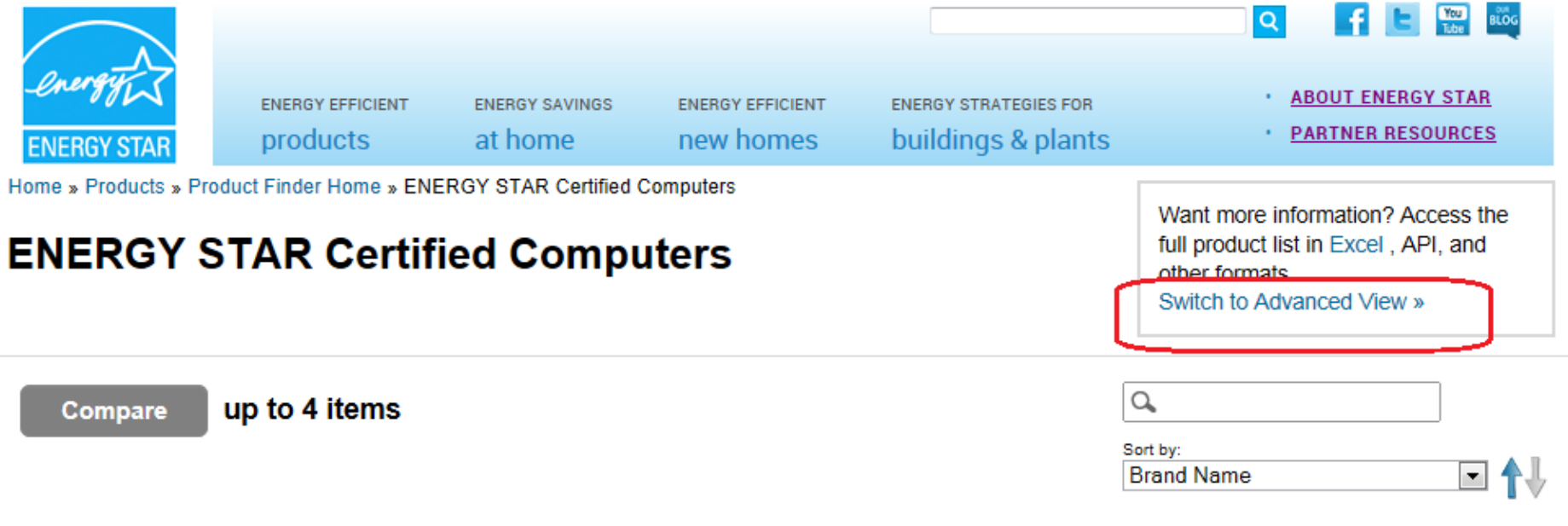Switch to Advanced View »

	Whirlpool - HEA*+ HEA*+	Electrolux - EWFLS70** EWFLS70**	Kenmore - 3141#31# 3141#31#	Samsung - WF56H91**A* WF56H91**A*
		Front Load	Top Load	Front Load
Volume (cu. ft.) ❶	4.33	4.42	5.0	5.56
Modified Energy Factor (MEF) ❶	3.3	3.29	3.0	3.55
Water Factor (WF) ❶	2.7	2.8	3.5	2.5

This is the tub capacity of the clothes washer in cubic feet, as measured by the U.S. Department of Energy (DOE) test procedure, Code of Federal Regulations, Title 10, Section 430, Appendix J1.

Product Finder Features

- Click Switch to Advanced View or start at data.energystar.gov

Advanced View Features

- Create account to save and share work

- Filter lists

- Create visuals (pie charts, bar graphs, etc)

- Embed filtered data or visual

- Export data

- Learn more in the How to Create Data Visualizations Guide at energystar.gov/productfinder

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Advanced View Features: Filters

- ## Sample filters available

Product Category	Unique filters	Cross-cutting filters
Clothes washers	• Load configuration • Connected functionality • ENERGY STAR Most Efficient	• Brand name • Model name, model number, additional model information • ENERGY STAR unique model identifier • Date qualified • Date available on market • Markets • Energy use • Efficiency ratios • Capacity • Product type • Meets ENERGY STAR Most Efficient Criteria
Dishwashers	• US federal standard • Water use • ENERGY STAR Most Efficient	
Refrigerators	• Connected functionality • ENERGY STAR Most Efficient	
Room air conditioners	• Reverse cycle	
Light bulbs	• Technology • Base type • Light Output • CCT • CRI • Special features • Power factor • Life Rating • Warranty • Dimming capability	
Commercial refrigerators and freezers	• Configuration • Door options • Refrigerant type	

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Advanced View Features: Filters

- Example: Find the subset of products that meet a particular efficiency threshold above ENERGY STAR

  – MEF greater than 2.39 and WF less than 4.1 (CEE Tier 3) Filter view: Click Filter

- Click on PD_ID and change it to the attribute you want to filter

Advanced View Features: Charts

- Determine the attributes you want to compare

- Structure data using the Sort & Roll-Up function in the Filter view

- Following example is for looking at bulb type availability (perhaps you want to start promoting specialty type bulbs)

Advanced View Features: Charts

- Group By allows comparison of items for the field selected (e.g., Bulb type)
- Roll-Up is what you would like to count (e.g., model numbers)
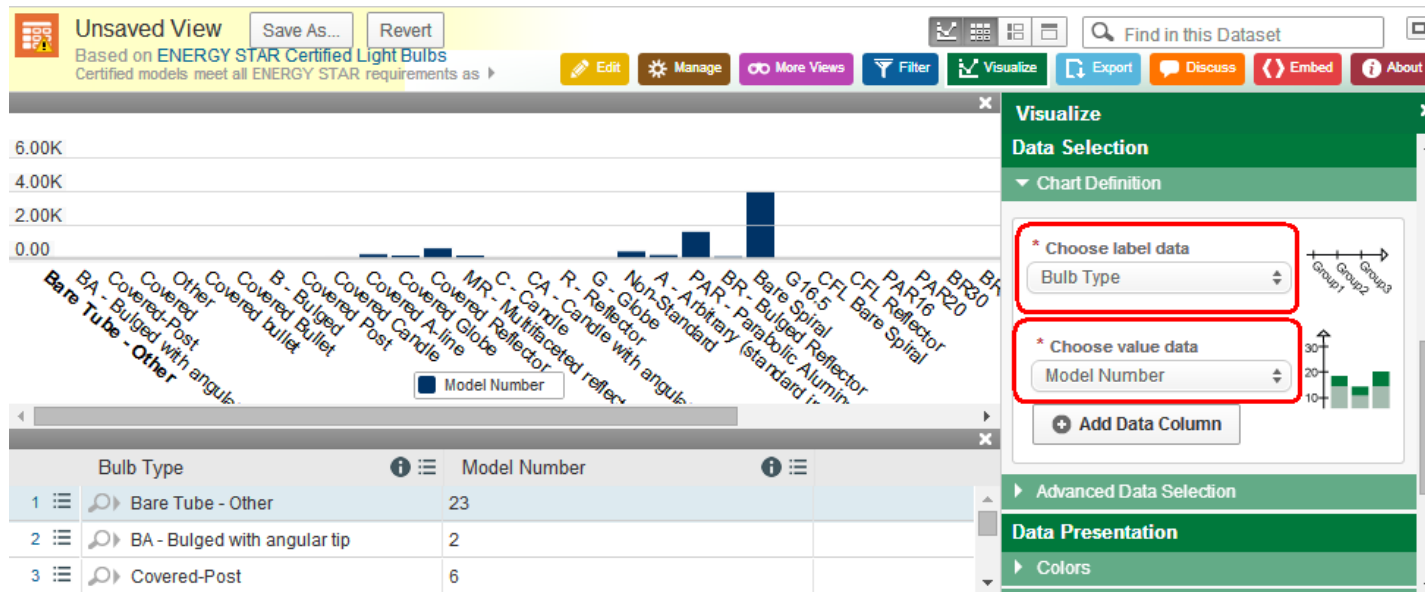- Click Apply and Save to use filter later

Advanced View Features: Charts

- Click Visualize

- Select chart type (e.g., bar chart)

Advanced View Features: Charts

- Format Chart

- Select Chart Definitions

- Customize colors, x and y axis names, etc
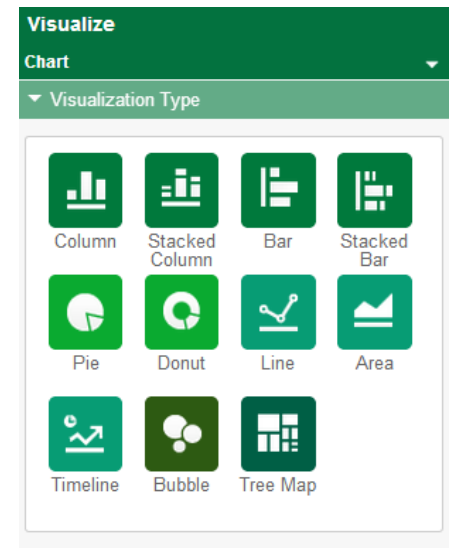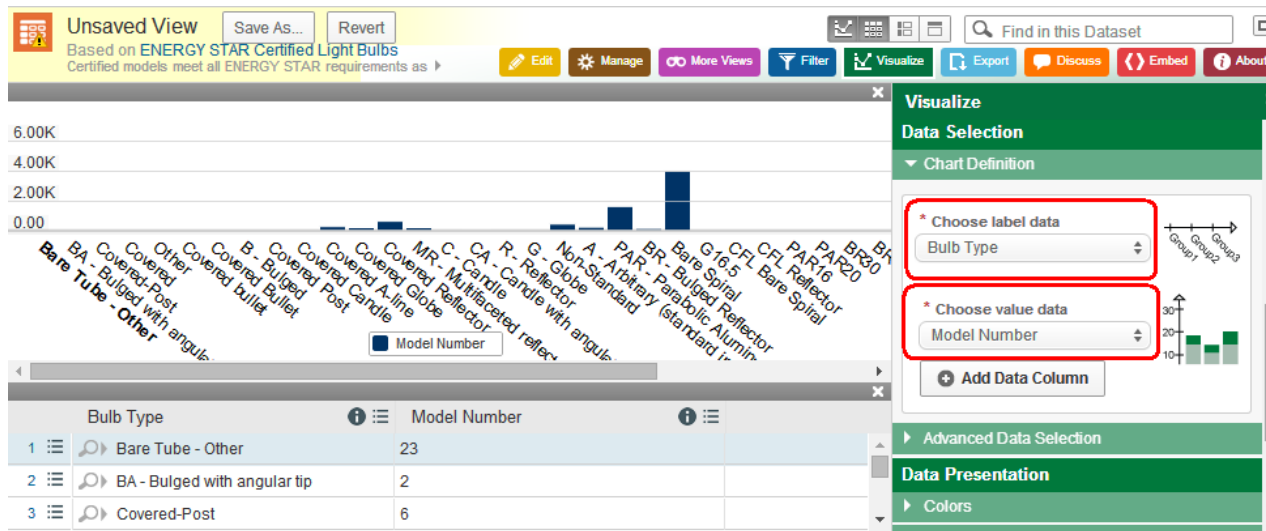
Advanced View: Embed Filtered Views

- Example: monitor your portfolio of ENERGY STAR certified products
- Filter by brand, partner, date qualified, etc.
- Create custom list through Product ID filter
- Link directly to filtered view

Advanced View: Webpage Embedding

- Embed filters, charts, and graphs into stakeholder webpages

Advanced View: Webpage Embedding

- Customize filtered view name, field order, fields shown, and sorting

Advanced View: Filter by ENERGY STAR Most Efficient

- Lists of products meeting 2014 criteria

Advanced View: Exports

- Spreadsheet export at top of product finders

- Product list export file options including CSV, JSON, PDF, RDF, RSS, XLS, XLSX, and XML
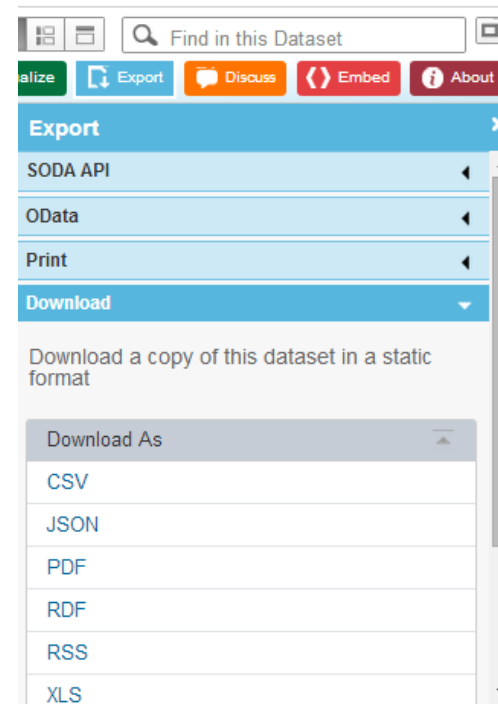
Custom Tool: Additional Models Segmenting

- Macro for searching models against additional models list

- Segments additional identifying information field

- Available at energystar.gov/productfinder

MODEL NUMBER TO FIND	PD_ID	Model Name	Model Number	Additional Model Information
6R3014DLB	2153637	6R3014DLB	6R3014DLB	6R3014DLB 6R3014DLB 6R3014DL,
9290002246	2168526	18PAR38/END/F36 3000-950 D	9290002246	18PAR38/END/F36 3000-950 DIM SM,92900022**
sample-bad-number	#N/A	#N/A	#N/A	#N/A

APIs

- Application Programming Interface (API)
- Publishes Certified Products Data in machine readable format
- Accessible to any application with a connection to the web
- All of the tools mentioned today are built off of the API
- Open and free for anyone to use

    data.energystar.gov/developers

Data Tools: APIs

```
┌─────────────────┐   ┌─────────────────┐   ┌─────────────────┐
│ Product Finder  │   │                 │   │                 │
│  Applications   │   │  Product Lists  │   │   Your Apps!    │
│                 │   │                 │   │                 │
└─────────────────┘   └─────────────────┘   └─────────────────┘
          \                    |                    /
           \                   |                   /
            \                  |                  /
             ┌──────────────────────────────┐
             │         Products API         │
             └──────────────────────────────┘
```
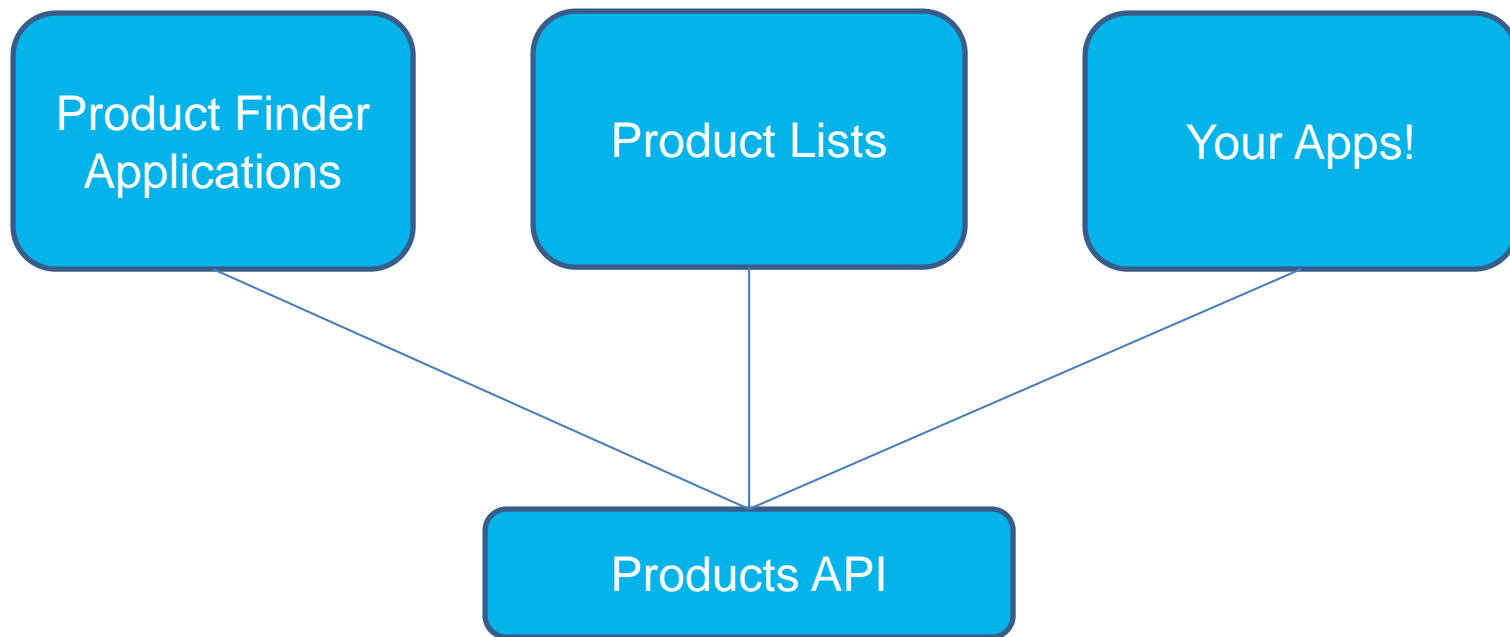
ENERGY STAR Logo

- The Certification Mark is a registered trademark that may only be used with products that have been certified to meet ENERGY STAR performance requirements

- EPA partners with product brand owners, retailers, and EEPS to promote energy efficiency of products, homes, and buildings; these partners agree to abide by EPA's ENERGY STAR program identity guidelines prior to using the logo

- EPA monitors the use of the ENERGY STAR label and name in trade media, advertisements, and the internet to ensure they are applied properly and consistently in the marketplace

- EPA is exploring ways to allow and encourage developers to automatically associate the ENERGY STAR with models in the products APIs (e.g. terms of use)

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Changes to Datasets: Drivers

- New product specification (e.g., clothes dryers)

- Change to existing specification (e.g., boilers)

- Dataset updates (e.g., change in metrics for evaluating product performance)

- Visit energystar.gov/productdevelopment

Changes to Datasets: Timeline for Revised Specifications

Month 1	Month 5	Month 9

Specification Finalized

Specification Effective

CBs Start Certifying to New Spec

CBs Stop Certifying to Old Spec

Product List = Old Spec

Upcoming Product List Available

Product List = Old + New Spec

Upcoming Product List Available

Product List = New Spec (old on archive tab)

Change Process Starts

2 Month Notice: Adding New Spec Fields

2 Month Notice: Removing Old Spec Fields

Change Process Ends

Change Process: Minor Changes

- Minor changes
  - Non-breaking changes
  - Dataset description updates
  - Limited addition of new columns
  - E.g. Boilers V3 (Adding V3 certified models, no changes to product list fields)

Change Process: Major Changes

- Major changes
  - Breaking changes
  - Removal of existing fields
  - Significant number of new fields (~5+)
  - Significant changes to existing fields

ENERGYSTARProductAPI
@ESProductAPI

Room Air Conditioners [tjzj-25n7] API
deprecating on Aug 18 - early access for
devs in July - info@Google Groups:
tinyurl.com/mlpxmyn

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7:26 PM - 17 Jun 2014

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Major Change Process

Communications for each time period
ENERGY STAR Products API Google Groups announcement
@ESProductAPI

2 Months Prior
- **What to Expect:** Announce changes will be made to a product list

1 Month Prior
- **What to Expect:** New draft "Upcoming" product list and specific changes released

1 Week Prior
- **What to Expect:** Final "Upcoming" changes to product list

Day of
- **What to Expect:** Replacement product list only

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Partners Next Steps

- Reviewing product finder and product lists
- Using filters
- Creating graphs and charts

Partners Feedback

- Feedback on tools and user experience
- Please let us know through the webinar questions tab or emailing energystarproducts@energystar.gov
- EPA will set up additional targeted sessions based on demand

API Developers Next Steps

- Follow us @ESProductAPI

- Join Google Groups developer forum
  ENERGY STAR Products API

- Review website resources

  - data.energystar.gov/developers

  - ENERGY STAR Products APIs Essentials

  (links through /developers webpage)

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API Developers Feedback

- API developer session walk-through?

- Feedback on APIs, change process

- Please let us know through the webinar questions tab or emailing energystarproducts@energystar.gov

EPA Next Steps

1. Dataset updates will now follow change process

2. Collect and review stakeholder feedback

3. Provide additional resources, trainings, and information on stakeholder topics of interest

Resources

- energystar.gov/productfinder
  - Product finder tools
  - Guide on creating filters and visuals
  - Macro for segmenting additional models
- data.energystar.gov
  - Product lists and API field names
  - EPA-created filters, charts, and graphs
- data.energystar.gov/developers
  - ENERGY STAR Products API essentials
  - Getting started with APIs
- ENERGY STAR Products API Google Group
- @ESProductAPI

Thank You!

Please send any additional comments or feedback to
energystarproducts@energystar.gov

Presentation will be posted on energystar.gov/productfinder